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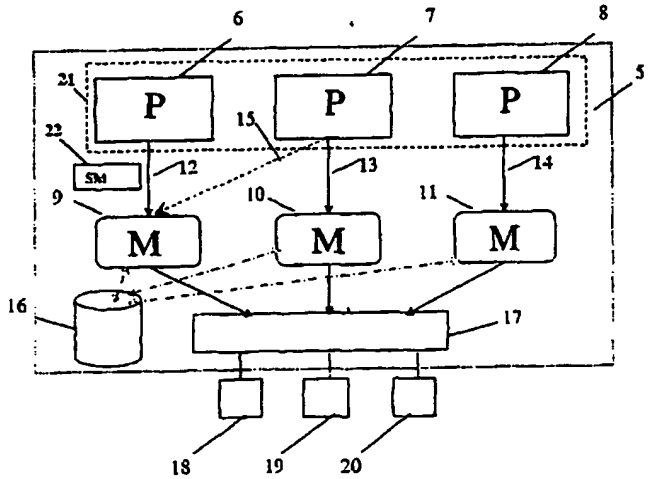
(54) Title: CONTROL SYSTEM, METHOD AND COMPUTER PROGRAM FOR SYCHRONIZING SEVERAL ROBOTS.



(57) Abstract: A control system (5) for controlling the movements of a plurality of mechanical units (1,2,3), comprising a program means comprising a plurality of mechanical unit programs (6,7,8), each comprising movement instructions for at least one of said mechanical units. The control system further comprises a plurality of path planners (9,10,11) and at least one of the path planners is adapted to receive instructions from more than one of said mechanical unit programs and on basis thereof determine how the mechanical units should move in order to synchronize their movements. The control system further comprises switching means (22) adapted to switch a mechanical unit program from one path planner to another, whereby the movements of the mechanical units are synchronized when their mechanical unit programs are connected to the same path planner and the movements of the mechanical units are independent when their mechanical unit programs are connected to different path planners.

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